

1. DEFINITION

Simulations only work if students buy into the premise. As such, one of the key challenges associated with building a successful simulation is creating a learning environment that facilitates student investment in the experience.

2. BEST PRACTICES

- a. Below are several items that you should consider incorporating into your simulation to create an immersive environment that promotes student learning and engagement:
 1. **Infrastructure:** Selecting an appropriate space for your simulation can help to create an immersive environment. The right space can encourage student investment in the activity and boost collaboration among learners (Bielaczyc, 2006). You may want to consider transplanting your simulation to a space that is separate from the rest of your course, which can help students appreciate the novelty of the learning exercise and encourage students to break out of their comfort zone (Dede, 2009). Additionally, consider what type of materials and/or infrastructure you could use to enhance the simulation. Does the learning space provide the flexibility you need (i.e. movable furniture, open spaces, access to technology) to properly conduct your simulation?
 2. **Tailoring the simulation to fit your classroom.** There are few one-size-fits-all simulations. Depending on your choice of simulation, you may need to design characters, plots, case studies, practicums tailored to your curriculum and learning objectives. You can modify existing simulations to fit your course, or build a simulation from the ground up. Props and materials can also help to deepen the immersive experience: these have shown to be particularly effective in role-play simulations (e.g. Schnurr, 2013).
 3. **Scaffolding the simulation.** It is important to consider when and how you introduce the simulation to your students. An initial lecture about the simulation can provide an overview of the content, context and intended outcomes, but providing too much information too soon can be overwhelming. Depending on the timeframe of your simulation, you might consider introducing the details incrementally to ensure students are not overwhelmed and to give them sufficient time to prepare. Common strategies to support students throughout a simulation include providing visual prompts and/or cards containing scenario information, while giving them adequate time to understand their role and objective(s) (Hobgood et al., 2010). If you are using an online or blended learning approach, you can deliver content and context incrementally via multimedia (e.g. videos, audio recordings, images, graphics etc.).

4. **Reflexive Pedagogy.** The success of this activity hinges on open dialogue between you and your students. You should regularly check-in with students to ensure that the learning experience is going as planned. It is common for students to feel overwhelmed and uncertain during the course of a large, multi-day immersive simulation. These anxieties can be minimized via consistent communication (e.g. leaving time for questions, discussion boards, chat rooms, etc.).

3. DISCIPLINES

Health Sciences

Immersive environments are crucial for students in clinical-focused programs, in order to prepare them for emergency real-world situations that they will encounter in their careers. McGrath et al. (2017) examine a highly immersive virtual simulation with the purpose of preparing students in the medical field for patient-based emergencies. Begun et al. (2003) discuss the use of human-human interaction within the health sciences, creating an immersive and complex networking simulation based on realistic scenarios between individuals within the system.

Natural Sciences

The notion of a “smart learning environment” is a growing interest in the evolution of education, especially when it comes to simulation learning in the sciences. Spector (2014) addresses how a technology-adaptive space can contribute toward the educational experience, and establish an environment most suitable for simulation learning.

Social Sciences

Role-play simulations are regularly used in the social sciences to create immersive simulations (Carnes, 2014). Several classes have used role-play simulations to replicate international negotiations. Hosting the event in a different location and encouraging students to take on their roles improved student performance (Crossley-Frolick, 2010). Social science classrooms can also benefit from using virtual spaces to conduct simulations. The use of online spaces can also be mobilized in social science classrooms to provide alternative modes of communication and interaction that can extend beyond class time (Dengler, 2008).

4. RESOURCES

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